

REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application and indicating that claims 3 and 4 contain allowable subject matter. Claim 3 has been amended to be in independent form .

The drawings have been amended to designate Figures 8-11B by the legend -- Prior Art--.

Disposition of Claims

Claims 1-4 are pending in this application. Claims 1-3 are independent. Claim 2 has been amended. Claim 4 depends from allowable claim 3.

Rejection(s) under 35 U.S.C § 103

Claims 1 and 2 stand rejected under 35 U.S.C. § 103 as obvious over U.S. Patent No. 6,038,100 (“Nagatsuka”) in view of U.S. Patent No. 5,907,451 (“Akieda”). The applicant respectfully traverses this rejection.

The invention relates to a magnetic device into which a tape cassette can injected without failure. For this, an embodiment of the invention includes rocking lever(s) (8) which swing forward and backward during the injection of the tape cassette. The rocking levers (8) include recessed groves (41) for holding, each one, a shaft (5). A spring (16) is located adjacent to the recessed groves (41) such that it applies a pressing force against the shaft (5). Each rocking lever include a cam (42) that protrudes forward by a determined distance “g” as shown in Figures 7a and 7b. The protrusion causes the guide

rod (5) to be pushed against a spring (16), increasing the pressing force applied to the guide rod (5). The increased pressing force prevents the guide rod from moving back. Therefore, the moving table (4) is prevented from moving back in the direction of forward motion. In this way the unintentional ejection of the tape cassette back to the cassette port is avoided.

Claim 1 recites a magnetic tape device including a pair of right and left guide plates; a tape cassette moving table that is placed to be movable forward and backward between a cassette inserting position and a cassette placing position; a rocking lever pivotally attached to one of said guide plates; a guide rod protruding from said moving table which is engaged with a recessed groove formed in a tip end portion of said rocking lever; a press spring engagingly held by said rocking lever and pressed against said guide rod; a cam formed in said recessed groove of said rocking lever; and a driving source wherein said moving table is slightly pushed-in in a backward motion direction by inserting a tape cassette to said moving table that is on standby at the cassette inserting position, and said driving source is activated in response to detection of the pushing, thereby backward swinging said rocking lever, and backward moving said moving table via said guide rod to the cassette placing position; and wherein when said moving table is pushed-in from the cassette inserting position in the backward motion direction, said guide rod is transferred onto said cam to increase a pressing force of said press spring.

Amended claim 2 describes a magnetic tape device including a pair of right and left guide plates; a tape cassette moving table that is placed to be movable forward and backward between a cassette inserting position and a cassette placing position that are set between said pair of right and left guide plates, said moving table being slightly pushed-

in in a backward motion direction by inserting a tape cassette to said moving table that is on standby at the cassette inserting position; a driving source activated in response to detection of the pushing, to backward moving said moving table to the cassette placing position; and a return preventing member including a guide rod disposed on said moving table, a press spring engaging with said guide rod to elastically press said moving table toward the cassette placing position, and a cam being abutable to said guide rod when said moving table is pushed-in in the backward motion direction from the cassette inserting position to relatively move said guide rod with respect to said press spring to thereby increase a pressing force of said press spring on said moving table.

As explained in the specification (pages 3-5) and shown in Figures 11A and 11B, conventionally, a recessed groove (8a) having the same thickness along its entire length is formed in an end portion of one of rocking levers (8). An end portion of a spring is located in the recessed groove (8a) such that it applies a pressing force P to a guide rod (5) that moves within the recessed groove (8a). In this way the moving table (4) placed at the cassette placing position B is prevented from being lifted accidentally. In the above configuration, when the tape cassette T is injected quickly, the pushing-in operation on the moving table (4) to which the tape cassette T is inserted is sometimes performed so insufficiently such that the rocking lever (8) (which has been once swung backward) is swung forward by repulsion and the tape cassette T is pushed back to the tape cassette insertion port 1a.

The present invention advantageously provides rocking levers that include recessed grooves with a cam that protrude forward in order to provide different values of pressing forces depending on the location of the shaft.

In contrast, Nagatsuka discloses a recording and/or reproducing apparatus with a variably damped cassette loading mechanism. The Nagatsuka mechanism includes an upper cassette holder and a lower moveable base plate. Two pairs of levers connected via a pivotable center point are located at each side of the cassette holder and the moveable base such that the cassette holder may be swung into the moveable base. Each lever of the pair of levers include at its upper end an arc shaped cam with a curved slot. A shaft that extends perpendicularly from the side walls of the cassette holder into the curved slot moves from a first position to a second position along the curved slot during the introduction of the cassette holder into the moveable base. The thickness of the curved slot through which the shaft travels from a first position to a second position is always the same, i.e., it does not include a protrusion for, for example, forcing the shaft against a preferred side of the curved slot. (As shown in Figure 3, the shaft during introduction of the cassette never reaches the expanded portion of the curved slot.) Nagatsuka does not include descriptions indicating or suggesting the inclusion of a spring and/or the formation of a protrusion along a specific position of the curved slot.

Akieda fails to show or suggest the invention. Akieda shows in Figure 5 and describes in the section corresponding to the "Background of the Invention" (column 2, lines 6-15) a mechanism for loading a cassette tape into a cassette player as known in the art. The mechanism includes rocking levers having recessed grooves with spring systems for maintaining a shaft, located in the recessed groove, at a specific position. Akieda does not teach or suggest a rocking lever that includes a cam that forces the shaft against the spring system in order to increase the spring's pressing force for preventing the movement of the shaft.

Therefore, Akieda fails to provide that which Nagatsuka lacks with respect to the claimed invention. Thus, claims 1 and 2 are patentable over Nagatsuka and Akieda, whether considered separately or in combination. Claim 4 depends from an allowed base claim and therefore is allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 04995/023001)

Respectfully submitted,

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